

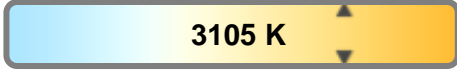
Light efficiency:



Light quality:



Color temperature:

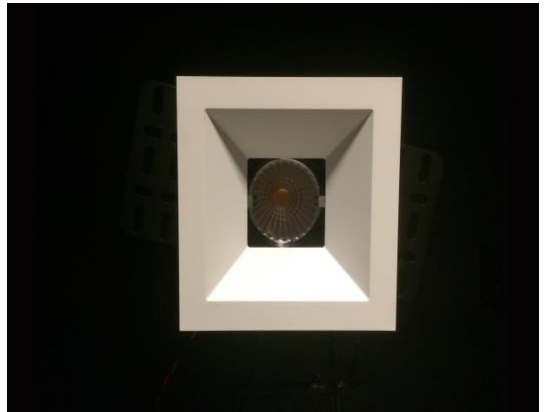


Output: 1379 lm

Peak: 4578 cd

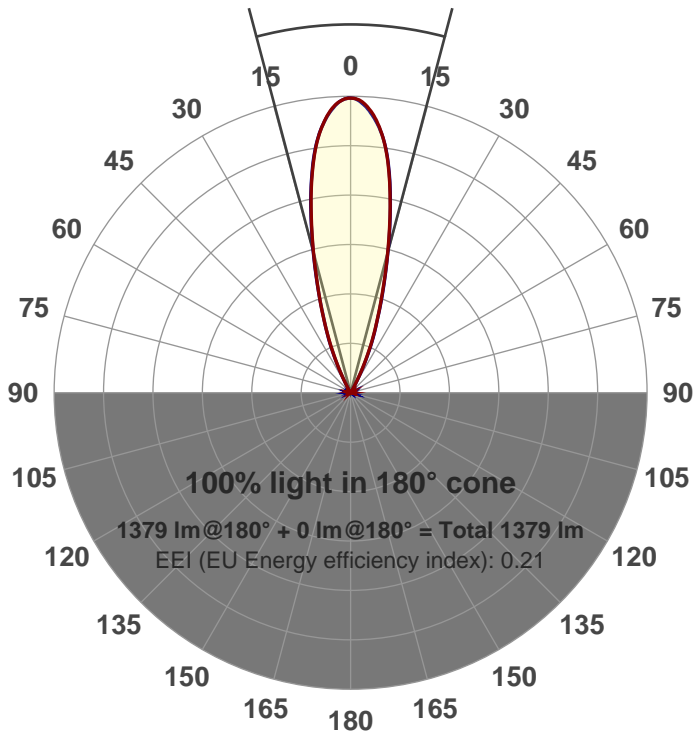
Power: 21.3 W

PF: 0.99



Beam angle

29.6°



Product name:

GR-CZ20-FL-SQ

Item number:

GR-CZ20-FL-SQ

Date and time:

3/8/2017 2:25:35 PM

Description:

LUM: 1379

PPF: 22.2

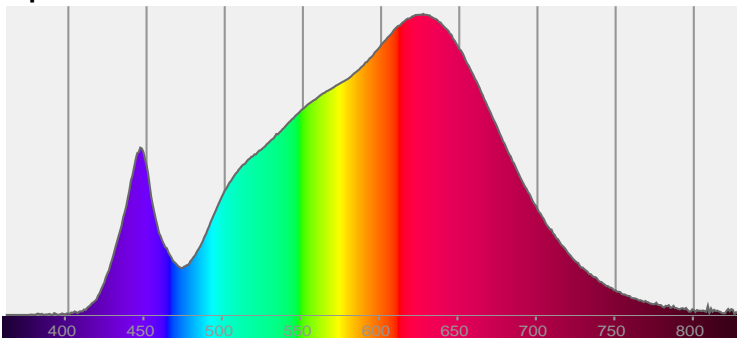


CIE 1931

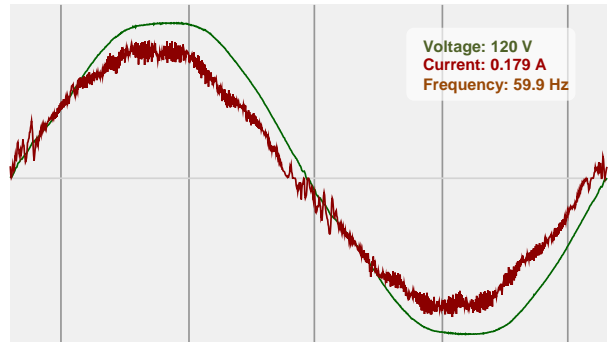
x: 0.429

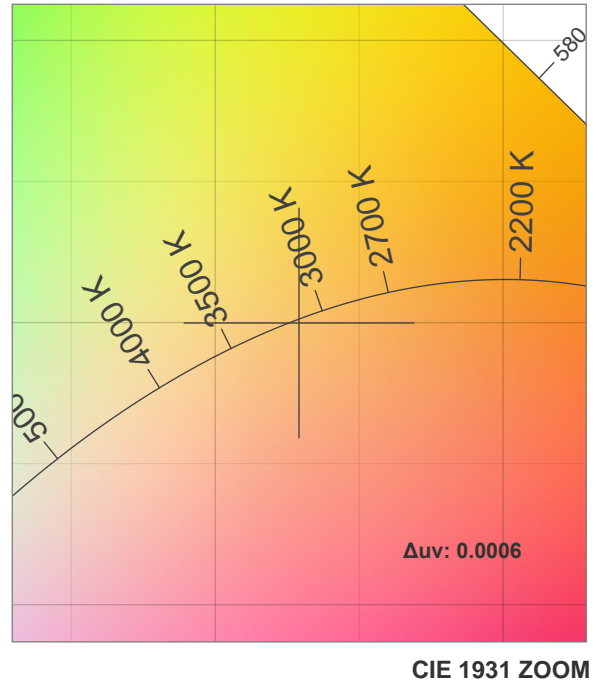
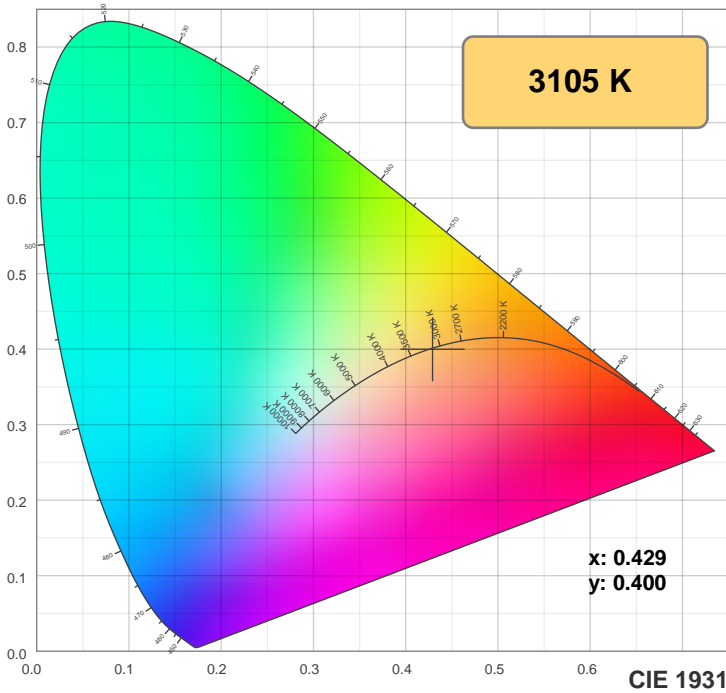
y: 0.400

Spectra



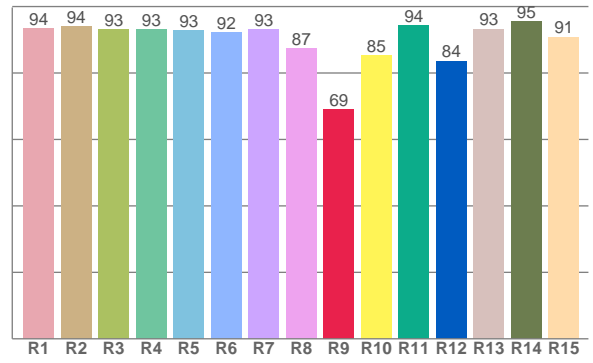
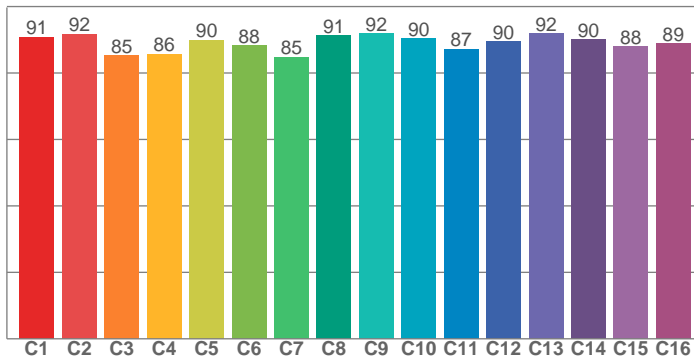
Power





TM30: 89.2

CRI: 92.4 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93.6	94.0	93.1	93.2	92.8	92.2	93.2	87.3	69.0	85.4	94.3	83.7	93.3	95.4	90.9

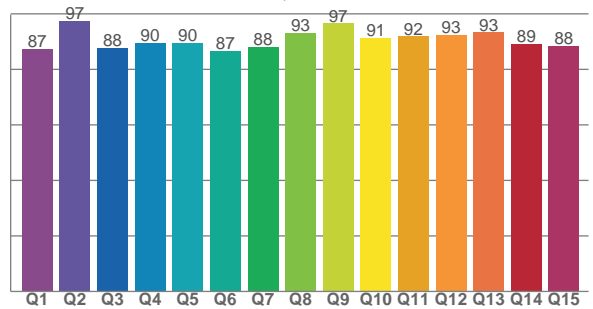
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.9	91.8	85.3	85.8	90.0	88.3	84.8	91.3	92.0	90.3	87.2	89.5	91.8	90.1	88.0	88.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.4	97.3	87.8	89.6	89.5	86.5	88.0	93.0	96.5	91.4	91.9	92.5	93.3	89.2	88.3

CQS: 90.2



Color parameters

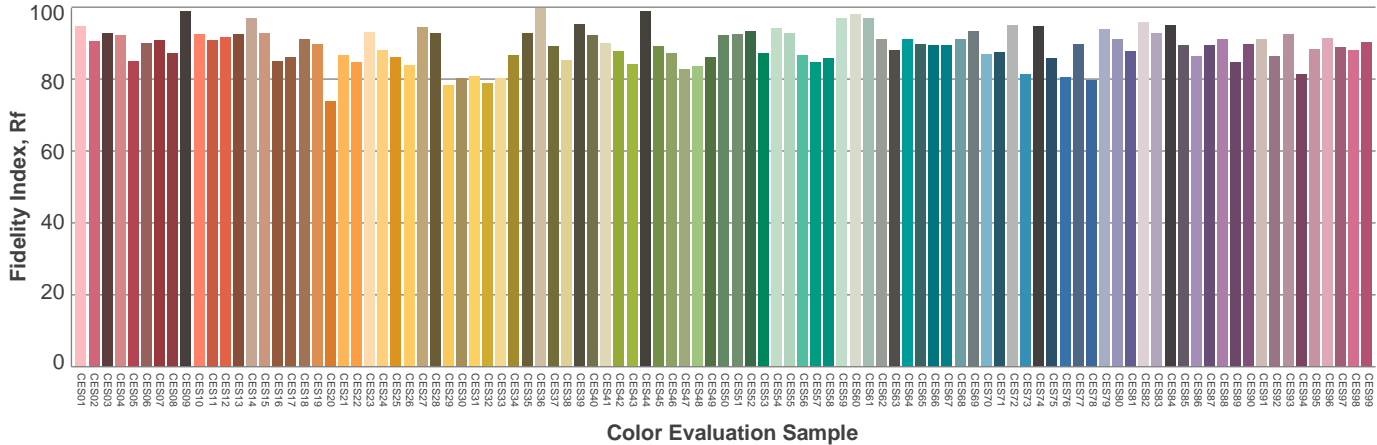
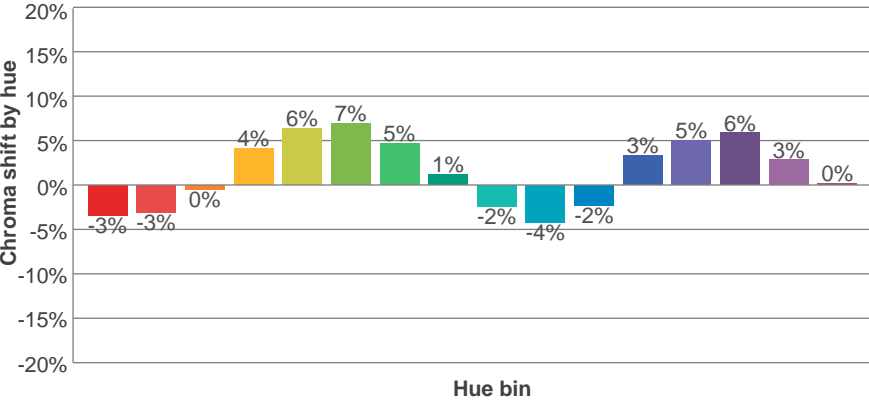
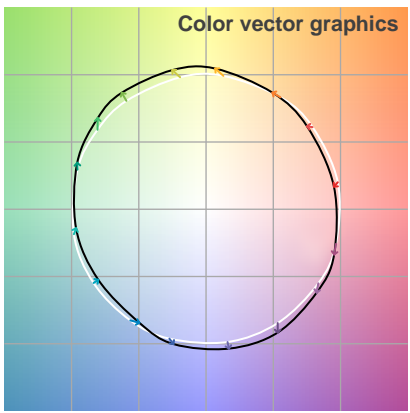
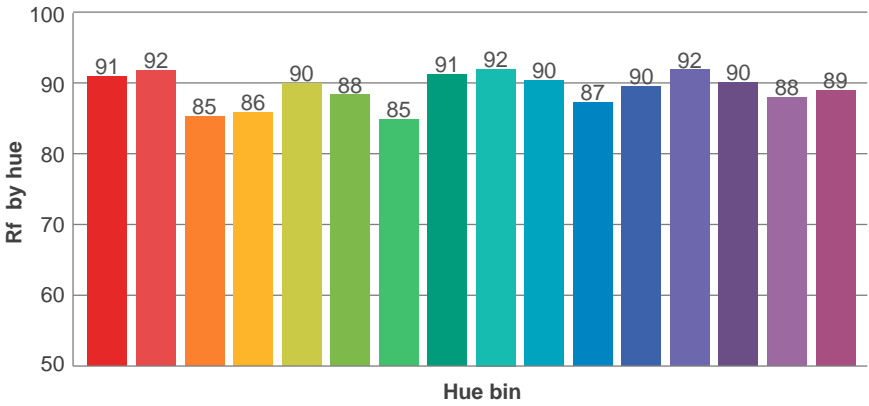
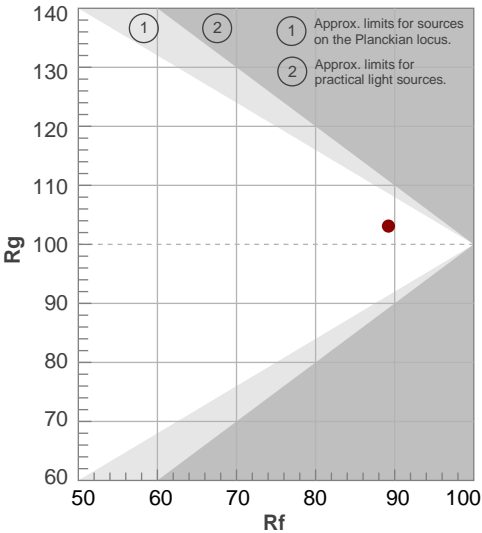
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3105 K	92.4	69.0	89.2	103.1	90.2	0.429	0.400	0.247	0.346	0.0006

TM30 details

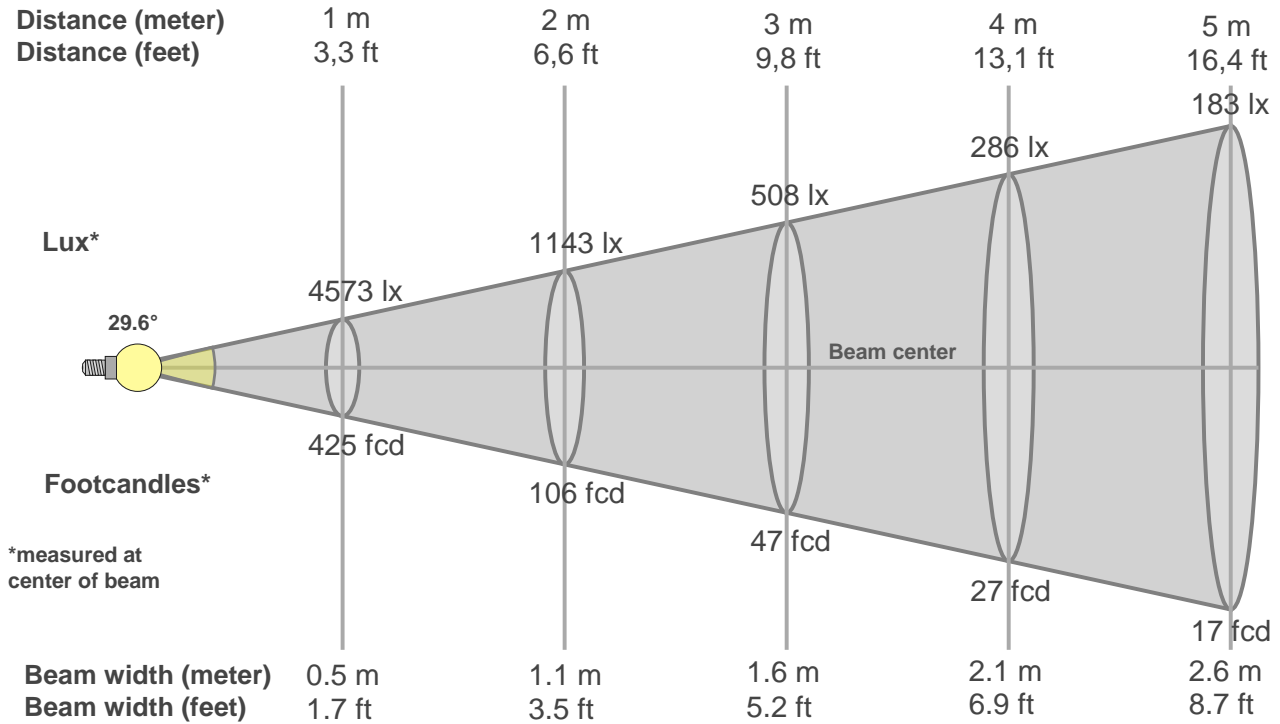
Rf 89.2
Fidelity index Rf

Rg 103.1
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	91	-3%	-3%
2	92	-3%	3%
3	85	0%	7%
4	86	4%	7%
5	90	6%	5%
6	88	7%	0%
7	85	5%	-7%
8	91	1%	-5%
9	92	-2%	-4%
10	90	-4%	0%
11	87	-2%	7%
12	90	3%	4%
13	92	5%	0%
14	90	6%	-4%
15	88	3%	-6%
16	89	0%	-8%



Beam details



Beam intensities from 1-20m

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
4573lx	1143lx	508lx	286lx	183lx	127lx	93lx	71lx	56lx	46lx	38lx	32lx	27lx	23lx	20lx	18lx	16lx	14lx	13lx	11lx
424.9fcd	106.2fcd	47.2fcd	26.6fcd	17fcd	11.8fcd	8.7fcd	6.6fcd	5.2fcd	4.2fcd	3.5fcd	3fcd	2.5fcd	2.2fcd	1.9fcd	1.7fcd	1.5fcd	1.3fcd	1.2fcd	1.1fcd

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4573	4530	4399	4171	3861	3436	2948	2448	1973	1569	1215	906	628	386	188	77	52	41	35	29
100%	99%	96%	91%	84%	75%	64%	54%	43%	34%	27%	20%	14%	8%	4%	2%	1%	1%	1%	1%

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4573	4531	4386	4171	3870	3455	2976	2466	1992	1568	1203	926	641	384	179	70	51	41	35	29
100%	99%	96%	91%	85%	76%	65%	54%	44%	34%	26%	20%	14%	8%	4%	2%	1%	1%	1%	1%

Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4573	4533	4393	4171	3862	3439	2953	2450	1978	1556	1213	925	650	407	197	76	52	40	34	28
100%	99%	96%	91%	84%	75%	65%	54%	43%	34%	27%	20%	14%	9%	4%	2%	1%	1%	1%	1%

Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4573	4514	4365	4158	3865	3459	2968	2469	1993	1588	1222	952	677	429	215	85	55	43	36	29
100%	99%	95%	91%	85%	76%	65%	54%	44%	35%	27%	21%	15%	9%	5%	2%	1%	1%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
29.6°	55.2°	64.1°	1.0%	1.0%

